

Community-based professional development for academics: A phenomenographic study

Professional development for academics has seen a trend towards social engagement through communities and groups, as reflected by a number of increasingly popular concepts: communities of practice, faculty learning communities, and learning and teaching networks. Despite the potential benefits of such engagement, there is a paucity of research on how academics perceive, experience and navigate the emerging community-based professional development (C-PD). This phenomenographic study generates four qualitatively different categories of ways in which academics conceive of C-PD: (1) knowledge sharing and help-seeking; (2) problem-solving and skills/ knowledge development; (3) mentoring, modelling, and sharing good principles and practices; and (4) an on-going journey that transforms learning and teaching. The study adds value to the literature by providing insight into how the focus of professional development and perceptual boundaries of community influence academics' conceptions of C-PD.

Keywords: academics; professional development; communities of practice; phenomenographic study; teaching and learning

Introduction

Professional development for academics has seen an increasing trend towards the involvement of communities and groups (Heinrich 2015), as reflected in a number of increasingly popular concepts, such as communities of practice (CoPs) (McDonald and Cater-Steel 2017a, 2017b; Wenger 1998; Wenger, McDermott, and Snyder 2002); faculty learning communities (Cox 2013), and learning and teaching networks (Van Waes et al. 2015; Wakefield and Dismore 2015). Community-based professional development (C-PD) has demonstrated advantages over individual-based training in terms of generating real improvements in practice (Furco and Moely 2012), effecting cultural and systemic changes (Pharo et al. 2014; Sack et al. 2016), and breaking

boundaries and facilitating interdisciplinary collaborations (Ng and Pemberton 2013).

However, there is a paucity of research on how academics conceive of and interact with communities and groups. Several case studies have investigated academics' experiences in a particular community (e.g. Howlett, Arthur, and Ferreira 2016; Ryan 2015), but fewer studies have examined their interactions with communities/ groups when they have a number of communities and groups to choose from. Academics today are assuming multiple roles, and are therefore often involved in multiple, possibly competing CoPs (Billot 2010). The lack of studies taking these factors into account limits our understanding of the role of communities in continued professional development. Furthermore, groups and communities manifest themselves in different ways, making it difficult to research one person's interactions with them.

Professional development through communities

In the past, professional development in teaching and learning largely focused on individual academics attending workshops. Because teaching is context-dependent, situated in a variety of microcultures (Roxå and Mårtensson 2015), the individual-focused approach has been criticised for its limited impact on actual teaching practices. What an individual learns in a workshop is often inconsistent with the extant practices in his or her home department. When such inconsistency occurs, the disciplinary teaching and learning regime often prevails, rendering professional development less effective (Trowler and Cooper 2002).

C-PD offers new opportunities for generating improvements in teaching practices. Based on a social theory of learning, C-PD emphasises that learning takes place through social interaction (Lave and Wenger 1991). By far the most widely used concept in this arena is CoPs, which refer to groups of people with shared interest in a particular domain interacting on an on-going basis to develop expertise in the area

(Wenger et al. 2002). CoP theory describes how a novice gradually moves from the periphery to the centre of a CoP by negotiating identity and practice (Wenger 1998). As it has evolved, the theory has shifted from a heuristic approach to understanding learning (Lave and Wenger 1991; Wenger 1998) to a management tool for sharing knowledge and nurturing innovation (Wenger et al. 2002).

Another concept associated with C-PD is the network, which describes a group of peers with weaker interrelationships than those seen in CoPs engaged in exploring a topic collectively (Van Waes et al. 2015; Wakefield and Dismore 2015). Roxå and Mårtensson (2009) find that academics often form small-scale yet significant networks, comprising fewer than ten partners for the discussion of teaching topics. A related concept is professional learning communities, which are predominately found in secondary schools (Little 2002). Relative to networks, professional learning communities are characterised by their tighter interdependence and regular interactions amongst members (Westheimer 1999). Faculty learning communities (Cox 2013) are similar to professional learning communities in the way that members interact.

Co-existence of multiple communities and groups

Government-sponsored, national-level CoPs are an increasingly common phenomenon worldwide. For example, the Australian Learning and Teaching Council provides large grants annually to fund teaching development projects, many of which involve the building of CoPs with members from a variety of institutions. In Hong Kong, the University Grants Committee (UGC), the funding agency for the territory's public universities, has launched two schemes (2012-2015, 2016-2019) aiming to incentivise academics to collectively develop sector-wide strategic areas of teaching and learning (UGC 2017).

These initiatives have resulted in sponsored communities, which can offer new

C-PD opportunities but can also cause confusion. Given that most academics are situated in more than one community (e.g. their disciplinary community, teaching and research committees, and networks) in the performative context of higher education (Ennals et al. 2015; Wenger-Trayner and Wenger-Trayner 2015), they may be reluctant to become involved in new or multiple communities owing to a lack of time and energy.

The co-existence of natural and created communities amplifies these tensions. There is long-standing debate over whether CoPs can be created. Scholars on one side of the debate insist that CoPs (and other collegial groups) can only emerge naturally, with any external attempts to create them likely to be perceived as simply another managerial mechanism competing with academics' own disciplinary communities (Gibbs 2017). A slightly different view is that of Wenger et al. (2002), who argue that although no community can grow by command, the conditions for growth can be cultivated. Other scholars posit that sponsored CoPs can serve as an intervention that advances the organisation's mission (e.g. Osman and Hornsby 2016).

Context of the study

Emergence of teaching-focused CoPs

Hong Kong has eight public universities funded through the UGC. An academic profile survey reveals the highly competitive environment in which academics in Hong Kong operate (Bennion and Locke 2010). Of the 17 countries/ territories surveyed, Hong Kong was one of only two in which the majority of academics are employed on fixed terms (Bennion and Locke 2010). The typical profile of professorial staff comprises 40% teaching, 40% research, and 20% service with teaching-track staff (e.g. lecturers) assigned 80% teaching duties and 20% service.

In response to prolonged discussions concerning the insufficient recognition of

excellent teaching compared to research, Hong Kong's higher education has seen an increase in the use of CoPs to instil a culture of teaching excellence (UGC 2010), with the UGC dedicating HK\$16 million to such initiatives. It is expected that the 'roles and responsibilities of these communities [to] include the admission of members and fellows, and the establishment of teaching awards to provide system-level recognition to outstanding teachers' (UGC 2010, 81). Some institutions have adopted more structured faculty learning communities (Cox et al. 2016), whilst others have opted for the more flexible model proposed by Wenger et al. (2002).

Centre-facilitated CoP

The institution selected for this study, a comprehensive research-intensive university, follows Wenger et al. (2002) in cultivating a CoP (centre-facilitated CoP hereinafter) centred on two main themes: assessment for learning and the internationalisation of teaching and learning. It is the only CoP within the institution that is directly funded by the UGC under the CoPs establishment scheme. Wenger et al. (2002, 4) define CoPs as 'groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an on-going basis', noting that they comprise *domain*, *community* and *practice*. Using the two aforementioned themes as the *domain*, the university-wide teaching and learning centre under study has facilitated on-going discussions of heated topics within the *domain*. The *community* is formed through member engagement in a series of 'join-the-conversation' events, during which those who have demonstrated good *practices* in a particular arena shared those *practices* and serve on a panel that engages in dialogue with colleagues. The good practices are then compiled into teaching resources and disseminated across the community. An e-newsletter has also been launched. This resource creation process has enabled the codification of knowledge (Wenger et al.

2002).

There is no monetary or career-related reward for participation in the centre-facilitated CoP. The main incentive is an opportunity to explore teaching-related topics with like-minded colleagues (Author 2016). For some participants, the dissemination of their teaching practices is seen as recognition of their work, which provides an additional incentive. The centre-facilitated CoP has attracted 60 academics within the university who engaged in on-going dialogue, as well as another 200 staff from across Hong Kong who participated informally by engaging in discussions or subscribing to resources. Whether the centre-facilitated CoP truly resembles the CoP as described in Wenger et al. (2002) lies beyond the scope of this study (a related study was published as Author [2017]). However, the foregoing description provides a sense of the efforts the university has made in response to the UGC's requirement to promote teaching and learning.

Research design and methodology

The aim of the research reported herein was to explore the qualitatively different ways in which academics conceive of C-PD. The research questions are:

- What are the qualitatively different ways in which academics conceive of C-PD?
- How do academics' conceptions influence the way in which they interact with C-PD initiatives?

In order to study the possible variations in academics' conceptions of C-PD, I adopted a phenomenographic approach to explore the qualitatively different ways in which academics perceive and understand reality (Marton 1981). Phenomenography involves a process of revealing and describing the variations in people's experiences (Marton and Booth 1997). It takes a second order research perspective, meaning that the

researcher sees the phenomena through the lens of people experiencing them and makes statements about these people's experiences (Marton 1981).

The various ways that people experience the phenomena can be described as 'conceptions' (Marton and Booth 1997, 114), the term used throughout the paper. The outcome of a phenomenographic study is a set of conceptions, represented as categories of description that are logically organised into an outcome space with the relationships between the categories specified (Åkerlind 2003). It is noteworthy that the description is 'stripped' (Marton and Booth 1997, 114) and positioned at the collective level. In this sense, the structure and essential meaning of the different ways of experiencing the phenomena are the focus of analysis whereas the specific characteristics of individuals' responses are not emphasised (Marton and Booth 1997).

Originated in a higher educational context (Marton 1981), phenomenography has been adopted by researchers to investigate teachers' conceptions of teaching (e.g. Åkerlind 2003) and research (e.g. Brew 2001). This study makes reference to these previous studies and focuses on academics' conceptions of C-PD.

Data collection

I used a combination of stratified and purposive sampling frameworks to sample two groups in the selected institution. Group A comprised ten academics involved in the centre-facilitated CoP and Group B ten academics who self-identified as not associated with that CoP. Within each group, I involved interviewees with as diverse a profile as possible (see Appendix I). This sampling method enjoys advantages over pure random or convenience sampling. My interest was in academics' conceptions of C-PD in an environment in which natural and sponsored CoPs co-exist. Hence, by design, all Group A interviewees were associated with at least one sponsored CoP (i.e. the centre-facilitated CoP), whilst four of the ten in Group B were involved in other sponsored

CoPs, such as on e-learning, service leadership, and residential education CoPs, with the remainder taking part in various natural CoPs, including discussions of teaching and informal exchanges with colleagues. This sampling approach was thus likely to reach academics with varied experiences, allowing exploration of the different ways in which academics conceive of C-PD.

I constructed an interview protocol for each group (see Appendices II and III) and piloted it with two colleagues. As the pilot interviewees were hesitant about specifying the communities to which they belonged, I subsequently revised the protocol. The final version for both groups began by asking the interviewees to freely discuss their concept of a professional development community and whether they were involved in any such communities. Probing questions were then asked to prompt them to describe any groupings, communities, networks, or individuals they would likely turn to for discussing teaching-related matters. Questions related to the centre-facilitated CoP were directed to Group A alone.

Each academic was interviewed once in a semi-structured interview, ranging in length from 35 to 75 minutes (average = 50 minutes). All interviews were audio-recorded and transcribed. Informed consent was obtained. The interviewees were informed that they could withdraw from the study at any time with no negative consequences and/ or require that the interview recording be deleted. No interviewee did either.

Data analysis

The transcripts were analysed in an iterative manner. As an academic and the facilitator in several C-PD initiatives, I am fully aware that I have my own conceptions. According to Clegg and Stevenson (2013), a researcher working in a similar context to his or her participants has insider status, which can be a virtue, in that he or she is more

knowledgeable of the context than an outsider would be, but becomes a problem if he or she is constrained by pre-perceptions. I therefore followed Åkerlind (2012) in trying to remain as open-minded as possible and to adjust my own thinking in light of new emerging perspectives.

The Groups A and B interview transcripts were analysed together. I started by reading the transcripts multiple times to acquire the main ideas. Initial descriptive codes were generated for each small segment of data across transcripts (Miles and Huberman 1994). The second step was to collate similar codes to form clusters, which were marked with notes alongside to indicate their relationship to possible dimensions of variations in experiences. The third step was to construct meanings, dimensions of variation, and structured relationships within the data, thereby forming initial hypotheses about them. I then proceeded to re-read all of the transcripts, looking to confirm, contradict or modify my initial hypotheses. The fourth step was to re-read each transcript again with the purpose of discerning the basic meaning structures characterising the qualitatively different ways of conceiving of C-PD, as well as the relationship between academics' conceptions and how they made sense of their experiences. This process continued until I had identified a stable set of conceptions, the corresponding structure of awareness, and dimensions of variation.

Outcome space

Four qualitatively distinctive categories of description depicting different conceptions of C-PD were identified and organised into an outcome space (Table 1). Each category consists of a referential component, which refers to the underlying meaning of the category, and a structural component, which reveals the structure of awareness underpinning participants' lived experience (Marton and Pong 2005). The structural component further incorporates both an internal horizon, referring to the aspects of the

phenomenon present in participants' awareness and their relationships (Pang 2003), and an external horizon, denoting the way in which the phenomenon is discerned from and related to its context (Marton and Booth 1997). The four categories are as follows.

Category 1: C-PD as knowledge sharing and help-seeking

Category 2: C-PD as problem-solving and skills/ knowledge development

Category 3: C-PD as mentoring, modelling, and sharing good principles and practices

Category 4: C-PD as an on-going journey that transforms learning and teaching

As previous researchers have highlighted (e.g. Brew 2001; Figueira, Theodorakopoulos, and Caselli 2016), these categories constitute a widening of awareness across the categories. The different conceptions they represent are internally related, and organised in a hierarchy, with each higher level encompassing those below it (Tight 2016). Moving across the categories, the external horizon expands from close circles and networks (Category 1) all the way to universities and academia (Category 4), whereas the internal horizon varies from skills and knowledge development (Category 1) to a primary focus on student learning (Category 4). Finally, the conceptions vary along four dimensions: motivations, the perceived nature of C-PD, coping mechanisms, and feelings. The four categories are discussed in greater depth in the following, with illustrative quotes from the interview transcripts.

[Insert Table 1 about here]

Category 1: C-PD as knowledge sharing and help-seeking

In Category 1, C-PD is conceived as a way of knowledge sharing and help-seeking. The focus of professional development here is knowledge and skills

development, achieved by sharing knowledge and seeking help within one's immediate professional network.

When I have a [teaching-related] problem, I turn to colleagues in my department to seek [their] opinions. (Amber, tenure-track)

A community is seen as small networks comprising colleagues and friends.

Between my colleagues, our group always has meetings, and we always share ideas among ourselves. (Gloria, teaching-track)

The main motivations for C-PD participation in this category are to exchange ideas and immediately resolve queries, whilst the perceived nature of C-PD is a way to boost work efficiency or enhance effectiveness.

My colleagues discuss with me how to prepare for the courses that I am working on now ... [because] you know, I am new to academia ... and I had never taught before. (Gerard, teaching-track)

Within Category 1, the mechanisms for coping with multiple communities are to see them as separate entities and to make a conscious choice about which to engage with.

I am also pursuing a higher degree. I always share research ... with my classmates. We then have some exchanges of ideas on the topic from an education research perspective... (Gloria, teaching-track)

The feelings associated with participation can be a sense of relief when one's immediate needs are fulfilled by talking to colleagues or a sense of frustration when those needs are not met. With respect to this category, the interviewees expressed doubts about the existence of teaching and learning communities beyond their immediate network.

I don't feel that there is a community [here]. Maybe there is, but the idea of having a CoP focused on ... teaching and learning among academics seems too ideal ... It is more realistic to look for support from close colleagues. (Roger, tenure-track)

Category 2: C-PD as problem-solving and skills/ knowledge development

In Category 2, C-PD is conceived as problem-solving and skills/ knowledge development. The focus of professional development is on skills and knowledge development, although student learning is taken into consideration. A community is seen as a functional team or group carrying out a series of tasks related to teaching and learning enhancement, for example, a teaching development project team. The motivations to participate are to develop effective teaching pedagogies and skills with specific objectives being set in advance while the perceived nature of C-PD is a way to solve problems or develop teaching pedagogies with like-minded peers.

The community that I am involved in for professional development is a teaching development project team. The topic is assessment and feedback. There are ten of us ... all from the same faculty. We did experiments in our own classrooms and [then] came back to share what we had found ... I learned a lot from the team.
(Kevin, tenure-track)

The mechanisms for coping with multiple communities in Category 2 are similar to those in Category 1, involving conscious decision-making about which communities or groups to engage with. The coping mechanisms are sometimes influenced by official duties. There are often communities that the interviewees felt reluctant to engage with but still chose to do so in order to fulfil their implied responsibilities.

I am on just two teaching projects. I don't want to commit to too many. I focus on those I am really interested in and those I believe in. I don't have that much time and cannot spread myself too thin. (Vicky, tenure-track)

The underlying feelings associated with participation include a sense of achievement when the specific project objectives are achieved and certain duties are fulfilled.

Q: How did you decide on your involvement in the three communities you mentioned?

I very much enjoyed the CoP with the co-teachers on our course but not the other two... joining them was involuntarily... I have to be a member because of my role in the department. I am interested in the topic but I am not active. (Tommy, tenure-track)

Category 3: C-PD as mentoring, modelling, and disseminating and sharing good principles and practices

In Category 3, C-PD is conceived as mentoring, modelling, and disseminating and sharing good principles and practices. The focus of professional development here is on a combination of knowledge, skills and relationship development, with student learning taken into consideration. An expanded view of community is exhibited, as representing a unit, department, subject or discipline. Participation is motivated by a desire to learn or promote good practices to enhance the student learning experience in a particular area. The perceived nature of C-PD is the collective promotion of teaching and learning practices that facilitate student learning.

I am very interested in using e-learning tools to help students learn. There is a lot of student feedback on the importance of clear goals and standards ... [and] we can do something through videos... I am experimenting with this with colleagues. ... I also work with colleagues from education in the community on the motivation aspect. I need their help in developing pedagogy... (Stephen, tenure-track)

Q: What motivated you to participate in this teaching CoP [the centre-facilitated CoP]?

Initially, I did not think of it as a community ... but now I think it is certainly a community for sharing good practices and learning from one another ... The most significant reason was that we do not discuss teaching enough in science. But I

know there are a lot of people doing things differently or [trying out] new and unusual techniques that other people can use for a better learning experience in science education.... (Harry, tenure-track)

The interviewees possessing this conception identified themselves as involved in more than one community, including funded CoPs, with those multiple communities regarded as related rather than separated entities. The mechanisms for coping with multiple communities in this category include identifying a common thread that allows community members to leverage their learning as coordinated efforts and maximising knowledge, skills, and relationship development. Collaborative opportunities are valued.

Q: What motivated you to participate in this teaching CoP [the centre-facilitated CoP]?

If a community [of practice] works, good word will spread... I received recognition from others, and some people called for cooperation after seeing my teaching development... I can see that many students have already benefited.
(Wilfred, teaching-track)

Within Category 3, the feeling underlying participation is primarily a sense of belonging, with individuals searching for a collegial space in which dialogue about teaching and learning can safely take place.

Category 4: C-PD as an on-going journey that transforms learning and teaching

In Category 4, C-PD is conceived as an on-going journey that transforms learning and teaching. Conceptions in this category reflect a primary focus of professional development on student learning, which is absent from the other categories. This final category features a broad definition of community, one that encompasses the university and academia as a whole with no clear boundaries.

Q: Are you involved in any groups, communities, networks, committees or other form of social engagement that you regard as a kind of professional development in teaching and learning? What have been your experiences?

I go to them, and I try to get involved in any discussions happening ... a seminar, a SIG [special interest group] and others. I am interested in what people are doing.... It is not like ... something that I have to force myself to do or think... just a kind of natural engagement. It is a form of support as well. I think... to a certain extent that I see my role as a senior member... to encourage people and to get involved.

(Maggie, teaching-track)

Here, the motivation to engage in C-PD initiatives is to initiate change. The perceived nature of C-PD is generating new directions and practices that add value to student learning.

Q: What motivates you to become involved in teaching-related communities?

I just want to share what I am doing [because] I think [some of my practices] can be adopted by others, as students clearly benefit from [them] according to the evidence ... Once you develop an interest in [or] curiosity about learning, which most university teachers do not have, ... then... there is a natural tendency towards sharing it. Not only sharing it but then testing it.... Ultimately, what we do [helps] students to learn better. (Richard, tenure-track)

Q: What motivated you to participate in this teaching CoP [the centre-facilitated CoP]?

I think global tertiary education is changing.... Any students can attend an MIT open course.... My colleagues and I continuously ask ... 'How can I really help students?' ... Teachers in universities need to think of this.... So on this platform [the centre-facilitated CoP], teachers can discuss their practices, [and] how the university should change its practices and find the most effective approach for students. (Susan, tenure-track)

The interviewees associated with the Category 4 identified themselves as engaged in many teaching communities, groups, and networks. The prime mechanism they cited for helping them to cope with multiple communities was to seize all possible opportunities

to initiate changes that can transform teaching and learning. No conscious effort was made to decide which community to become involved in. Rather, what is considered important is whether the community can create a vigorous knowledge sharing process. The underlying feeling associated with C-PD participation for these interviewees is a sense of agency.

You can call it a café, a gathering, a CoP, an interest group ... it does not matter. [What is important] is how you engage people ... get them to talk about learning and teaching.... From there, we can do something together to change the examination-oriented culture. (Gary, teaching-track)

Patterns across the data

Having a sample of interviewees with a diverse profile, it would be interesting to observe patterns across the data in terms of the presence or lack of certain conceptions among the transcripts of a specific group of interviewees. In keeping with the principle of phenomenographic research that individuals are ‘the bearers of different ways of experiencing a phenomenon, and as the bearers of fragments of differing ways of experiencing that phenomenon’ (Marton and Booth 1997, 114), I tried to highlight only distinctive patterns at a collective level, while remained cautious about not drawing implications by focusing on any individual.

Three distinctive patterns were identified. Overall, most of the interviewees (i.e. 17 out of 20) were associated with more than one conception while facets of some conceptions were more frequently identified than the others. Specifically, elements in the Category 1 conception were identified in transcripts from sixteen interviewees while those in Category 4 conception were only identified in five. Second, the Groups A and B interviewees shared the same four categories of conceptions. Third, characteristics of

the Category 4 conception were only found in transcripts from interviewees with more than five years of experience in the institution.

Discussion

This study generated four qualitatively different ways of conceiving of C-PD. The academics' conceptions were affected by their structure of awareness, consisting of the focus of professional development and perceptual boundary of the community. When academics focus on skills and knowledge development and situate their teaching work in a small circle, their conceptions of C-PD tend to be transactional, that is, concerned with efficiency, effectiveness and professional survival. When they instead focus on student learning, or at least take it into consideration, and situate their teaching in a broader context, their conceptions tend to be transformational, concerned with creating a new teaching and learning environment. Green et al. (2013) report the presence of both transformational and transactional experiences in the same teaching-focused CoP.

In the context of the current study, the internal horizon reflects the divide between teacher- and student-focused orientations of teaching conceptions, as supported by the literature on teaching conceptions (e.g. Kember 1997) and teachers' development and growth (e.g. Åkerlind 2003). This study further identifies an emphasis on teaching skills and knowledge to be associated with knowledge sharing and teaching development in small groups (i.e. Categories 1 and 2), whilst an emphasis on student learning tends to be associated with engagement in multiple communities (i.e. Categories 3 and 4). It is noteworthy that the focus of professional development in all categories involves knowledge and skills development, and that a focus on student learning does not exclude attention to knowledge and skills. This finding is in line with Åkerlind's (2003) statement concerning the inclusive nature of the relationship between student- and teacher-focused teaching conceptions.

The perceptual boundaries in this study range from close networks to the university and academia as a whole, which accords with Ryan's (2015) discovery of different interpretations of CoPs amongst academics. Those boundaries can be further mapped to different schools of thought in the literature. For example, Category 1 is similar to small networks through which one seeks help when necessary (Roxå and Mårtensson 2009; Wakefield and Dismore 2015). There is a weak interrelationship amongst individuals in those networks, but one generally knows whom to approach. Category 2 can be associated with professional learning communities (Little 2002) with specific tasks and regular interactions, whereas Category 3 is closer to the CoPs envisioned by Wenger et al. (2002), that is, one that involves shared interests, on-going interactions, and shared resources, routines and language. Category 4 is close to the original CoPs concept proposed by Lave and Wenger (1991) and later developed by Anderson and McCune (2013): CoPs as a heuristic for understanding learning and teaching in academic communities.

This study also suggests that relationship development is present in the focus of awareness amongst academics associated with Categories 2, 3, and 4. Earlier studies have discussed the role of collegial support in academics' professional development (e.g. Green et al. 2013). Whilst collegial support was also evident in this study, the concept of collaborative initiative building also arose, with the results suggesting that it is the emphasis placed on collaborative efforts in recent years in Hong Kong that has created a desire to search for potential collaborators in the performative context of higher education.

One of the dimensions of variation was the motivation to participate in C-PD. It ranged from resolving immediate queries (Category 1) to changing the teaching and learning culture in higher education (Category 4). This finding is consistent with

Wakefield and Dismore's (2015) identification of a mixture of individual-based and collaborative motivations for C-PD participation. A related dimension of variation was the perceived nature of C-PD, which varied from boosting efficiency and effectiveness on an individual basis (Category 1) to transforming students' learning experience through collective efforts (Category 4). Gibbs (2013) identifies that academics' professional development has witnessed a shift from a focus on individual teachers to a focus on course teams and departments, as well as from a shift from fine-tuning current practices to creating new ones. All of these elements were contained in the participating academics' conceptions of C-PD, although their experiences at a given time depended on their focus of awareness.

Another dimension of variation was the mechanism for navigating multiple communities. The conceptions in Categories 1 and 2 involve conscious choices and sometimes struggles about which communities or groups an academic should spend time with. Those in Categories 3 and 4, in contrast, feature less concern about 'too many' communities and more about whether those communities facilitate quality dialogue. Billot (2010) argues that academics are grappling with a fluid, multifaceted identity in today's changing higher education environment. The current findings support that argument, and further reveal that academics cope with multiplicity in a variety of ways that can be distinguished by their conception of C-PD.

Pattern analysis revealed Category 1 to be the most common conception and Category 4 the least, which is in line with Roxå and Mårtensson's (2009) finding that most academics talk about teaching in small networks, and Trowler and Cooper's (2002) that academics rarely consider teaching beyond their department or subject. In terms of grouping, the Groups A and B interviewees shared the same four categories of conceptions. The centre-facilitated CoP, in which all Group A interviewees were

involved, is a cross-departmental, interdisciplinary C-PD initiative, which comes closest to the Category 3 conception. Interestingly, some of the Group B interviewees also exhibited facets of the Category 3 conception, implying that being involved in the centre-facilitated CoP was not the only condition for the development of this conception and that there were other similar C-PD initiatives that these interviewees in Group B were aware of.

There were also notable differences amongst academics with different years of experience at the focal institution, with those with over five years of experience more associated with Category 4. Miller-Young et al. (2016) report that academics with more years of experience in an institution are generally more concerned about their departments, disciplines, and the institution, whilst their counterparts with fewer years are more concerned with survival.

As one of the first attempts to explore academics' conceptions of C-PD in the ever-changing higher education environment, this study has a number of potential limitations. First, the participants of this study, though with a diverse profile, were selected from one research-intensive university in Hong Kong. The results may not be readily generalised to academics in other types of universities or in different contexts. That said, the results are still relevant to an international audience due to the fact that professional development for academics in Hong Kong follows a global trend of increased collaborative and community-based initiatives. Second, this study focused primarily on academics' conceptions of the teaching aspect of C-PD whereas the possible influences from research and other areas in the academic work were not explored. Future research may extend the study with samples in different types of universities and settings, and adopt a holistic perspective on C-PD that covers multiple aspects of the academic work.

Additionally, the pattern analysis results need to be interpreted with caution. Conceptions in phenomenographic analysis are context-sensitive although individuals may show a tendency toward one particular conception (Åkerlind, 2005). The conceptions reflected in a transcript only show the tendency of the interviewee under specific circumstances, which does not imply that the individual is holding those conceptions permanently.

Implications

This study has implications for teaching and learning enhancement through C-PD. Academics are already pursuing teaching endeavours through C-PD in different ways. The current findings highlight a potential issue for concern: when academics possessing different conceptions of C-PD are brought together in a single community through a funded project, their differing motivations may lead to difficulties in communication and unmet expectations. This study offers an alternative to the conventional assumption that these issues were caused primarily by disciplinary differences or the C-PD design.

It is therefore important that C-PD facilitators understand academics' conceptions and support multiple ways of participating. The findings suggest that more complex conceptions (e.g. Categories 3 and 4) involve a broader conception of community and expanded awareness of the development focus. Facilitators may consider expanding academics' awareness by calling their attention to teaching developments beyond their immediate networks and connecting professional development more explicitly to students' learning experiences.

Conclusion

By adopting C-PD as a lens to examine the qualitatively different ways in which academics develop their teaching through social learning, the study reported herein

makes several contributions. First, it responds to the trend towards enhancing teaching and learning at the meso-level in Hong Kong and worldwide. Second, it challenges the uncritical use of CoPs theory in conceptualising C-PD by identifying different ways in which C-PD initiatives are conceived and the associated experiences. Finally, the study reveals that academics may find different elements of a C-PD initiative attractive depending on their focus of awareness at the time of participation.

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Table 1. Outcome space

External horizon	Category of description	Internal horizon		Dimension of variation			
The perceptual boundary of community	The qualitative way in which C-PD is conceived	The focus of awareness	What is absent from the focus of awareness?	Determinants (the motivations to participate in C-PD)	Nature (the perceived nature of C-PD)	Coping mechanisms (ways of dealing with multiple communities)	Feelings (the feelings associated with participation in C-PD)
Close circles and immediate networks	1. Knowledge sharing and help-seeking	Skills and knowledge development	Student needs and relationship development	Exchanging ideas and resolving immediate queries in teaching	Boosting work efficiency or effectiveness on an individual basis	Conscious choice amongst a few communities seen as separate	Sense of relief/ Sense of frustration
Teams and groups	2. Problem-solving and skills/	Skills and knowledge development with	Relationship development	Developing effective teaching	Solving problems and developing teaching pedagogies and	Conscious choice amongst a few	Sense of achievement

	knowledge development	consideration of student learning		pedagogies and skills	skills with like-minded peers	communities seen as separate	
Units, departments, subjects, and disciplines	3. Mentoring, modelling, and sharing and disseminating good principles and practices	A combination of skills, knowledge, and relationship development with consideration of student learning	The wider socio-cultural environment of university education	Developing and promoting effective teaching pedagogies and practices	Promoting effective teaching and learning practices through collaborative efforts	Typically more than three communities, some of which are seen as connected	Sense of belonging
Universities and academia	4. An on-going journey that transforms learning and teaching	Primarily student learning whilst covering a combination of skills, knowledge, and relationship development	Specific teaching skills and knowledge	Changing the teaching and learning culture in higher education	Transforming the teaching and learning culture in higher education through collective efforts	Many (sub-) communities that are seen as connected	Sense of agency

Appendix I. Interviewee profiles

Group A (identified as associated with the centre-facilitated CoP)				
Name	Gender	Discipline	Track	Years of experience at the institution
Gregory	M	II	Teaching-track	5-10
Harry	M	I	Tenure-track	>10
Hilary	F	II	Tenure-track	>10
Janice	F	II	Teaching-track	< 5
Keith	M	I	Teaching-track	< 5
Maggie	F	II	Teaching-track	> 10
Richard	M	II	Tenure-track	> 10
Susan	F	II	Tenure-track	5-10
Tommy	M	II	Tenure-track	> 10
Wilfred	M	I	Teaching-track	> 10
Group B (identified as not associated with the centre-facilitated CoP)				
Name	Gender	Discipline	Track	Years of experience at the institution
Amber	F	I	Tenure-track	< 5
Benjamin	M	I	Teaching-track	5-10
Gary	M	I	Teaching-track	5-10
Gerard	M	II	Teaching-track	< 5
Gloria	F	II	Teaching-track	< 5
Kevin	M	II	Tenure-track	< 5
Nelson	M	I	Tenure-track	> 10
Roger	M	I	Tenure-track	> 10
Stephen	M	I	Tenure-track	> 10
Vicky	F	II	Tenure-track	5-10

Note: To ensure confidentiality, pseudonyms are used and the disciplines are grouped into two broad categories (I: Science, Engineering, Medicine, and Dentistry; II: Arts, Architecture, Humanities, Law, Social Sciences, and Education).

Appendix II. Interview questions for Group A (those who self-identified as associated with the centre-facilitated CoP)

1. Would you please share with us something about yourself and your teaching duties?
2. What do you think community-based professional development means?
3. Are you involved in any groups, communities, networks, committees or other form of social engagement that you regard as a kind of professional development in teaching and learning?

What have been your experiences?

(Prompting question for a No answer to the above: To whom or what resources do you turn when you want to seek help on anything related to your teaching?)

4. How do you decide about the time and energy to spend in the aforementioned groups, communities, networks or committees? Do you have any priorities or preferences?
5. You identified yourself as associated with the community of practice facilitated by the centre [centre name omitted]. What motivated you to participate?
6. What has been your experience in this community of practice? Has it had any impact on you?
Can you please give an example?
7. How would you compare the centre-facilitated community of practice with the other groups, communities, networks or committees that you have been involved in?
8. Are you aware of the term 'communities of practice' or of any existing communities of practice in this university? How would you interpret the term?
9. What do you think is the role of community-based professional development in higher education (e.g. professional development through engagement in groups, communities, networks, and committees, etc.)?

Appendix III. Interview questions for Group B (those who self-identified as not associated with the centre-facilitated CoP)

1. Would you please share with us something about yourself and your teaching duties?
2. What do you think community-based professional development means?
3. Are you involved in any groups, communities, networks, committees or other form of social engagement that you regard as a kind of professional development in teaching and learning?

What have been your experiences?

(Prompting question for a No answer to the above: To whom or what resources do you turn when you want to discuss or seek help on anything related to your teaching?)

4. How do you decide about the time and energy to spend in the aforementioned groups, communities, networks or committee? Do you have any priorities or preferences?
5. Are you aware of the term 'communities of practice' or of any existing communities of practice in this university? How would you interpret the term?
6. What do you think is the role of community-based professional development in higher education (e.g. professional development through engagement in groups, communities, networks, and committees, etc.)?